

REMARKS**I. Allowable Subject Matter**

The Examiner has indicated that claims 3, 7 and 20 would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim 3 has been cancelled and rewritten as new independent claim 25 to include all of the limitations of base claim 1.

Claim 7 has been cancelled and rewritten as new claim 26 to include all of the limitations of base claim 1 and intervening claims 4 and 5.

Claim 20 has been rewritten as new independent claim 27 to include all of the limitations of base claim 18 and intervening claim 19.

Thus, it is believed that new claims 25, 26 and 27 are in condition for allowance.

II. Objection to Claim 17

The Examiner objected to claim 17, citing a specific informality in the claim.

It is believed that the cited informality has been corrected by amendment to claim 17, as provided above, and as suggested by the Examiner.

III. Rejection under 35 U.S.C. §103(a)

Claims 1-2, 4-6 and 8-17 have been rejected under 35 U.S.C. §103(a) as being unpatentable over *Kuniyasu et al.* (US 6,744,797) in view of *Tanaka* (US 6,430,204) and further in view of *Natasuka* (US 4,744,175). Claims 18-19 and 21-23 have been rejected under 35 U.S.C. §103(a) as being anticipated by *Kuniyasu* in view of *Nakasuka*.

Independent claims 1 and 14 have been amended above to recite that the etched diverging lens structure formed in the upper cladding region of the claimed diode-laser is formed on the midline horizontal axis of the laser structure. Independent claims 17 and 18 having been previously amended to also recite that the etched diverging lens structure is formed along the laser's midline horizontal axis.

Contrary to the Examiner's assertion, the *Kuniyasu* reference neither teaches nor suggests this limitation. Neither do the other two references cited by the Examiner, *Tanaka* and *Natasuka*, whether considered individually or in combination with *Kuniyasu*.

As previously stated by Applicant, the Examiner relies on *Kuniyasu*'s disclosure of a semiconductor laser device having a pair of "ridge grooves" that are formed to be parallel to the midline longitudinal axis (see Figs. 1(b)-1(d)), with "current non-injection regions" being formed "between the two ridge grooves" (col. 4, lines 4-14). However, *Kuniyasu* does not disclose at least one etched area aligned with the midline longitudinal axis having a shape and depth profile selected to provide a diverging lens effect, as recited in claim 18, for example. The ridge grooves or "trenches" identified by the Examiner run parallel to the midline longitudinal axis of the laser structure and outside the current non-injection regions of *Kuniyasu*. There is no disclosure in *Kuniyasu* as to how ridge grooves located outside the current non-injection regions can provide a diverging lens effect, or how such an effect could be affected by the shape and depth profile of those grooves. Further, it would not be obvious that ridge grooves outside the current non-injection regions could be used to provide a diverging lens effect with any likelihood of success.

While the *Natasuka* reference does teach a laser structure that includes etched diverging lens structures, there is nothing in this reference that suggests, or that would motivate one skilled in the art, that these lens structures should be formed on the midline longitudinal axis, as recited in Applicant's independent claims 1, 14, 18 and 19.

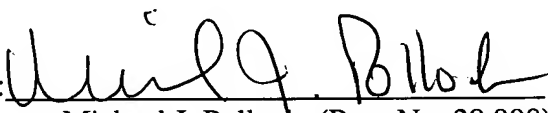
Similarly, while *Tanaka* discusses techniques for preventing optical damage in a laser structure, the reference provides no suggestion or motivation to form diverging lens structures on the midline horizontal axis of the laser structure. Applicant's specification discusses, at page 7, lines 14-23, for example, the advantages of forming the diverging lens structure on the midline axis, as recited in Applicant's claims.

For the reasons set forth above, Applicant believes that all claims now present in this application are in compliance with the requirements of 35 U.S.C. §112 and patentably distinguish over the prior art. Therefore, it is requested that this application be passed to allowance.

Respectfully submitted,

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